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# SPECIFICATION

*PART NO. : LP30N3-S069*

**COB 75 x 75 mm TYPE**



Approved by	Checked by	Prepared by
王方波	蘇智良	陳富強





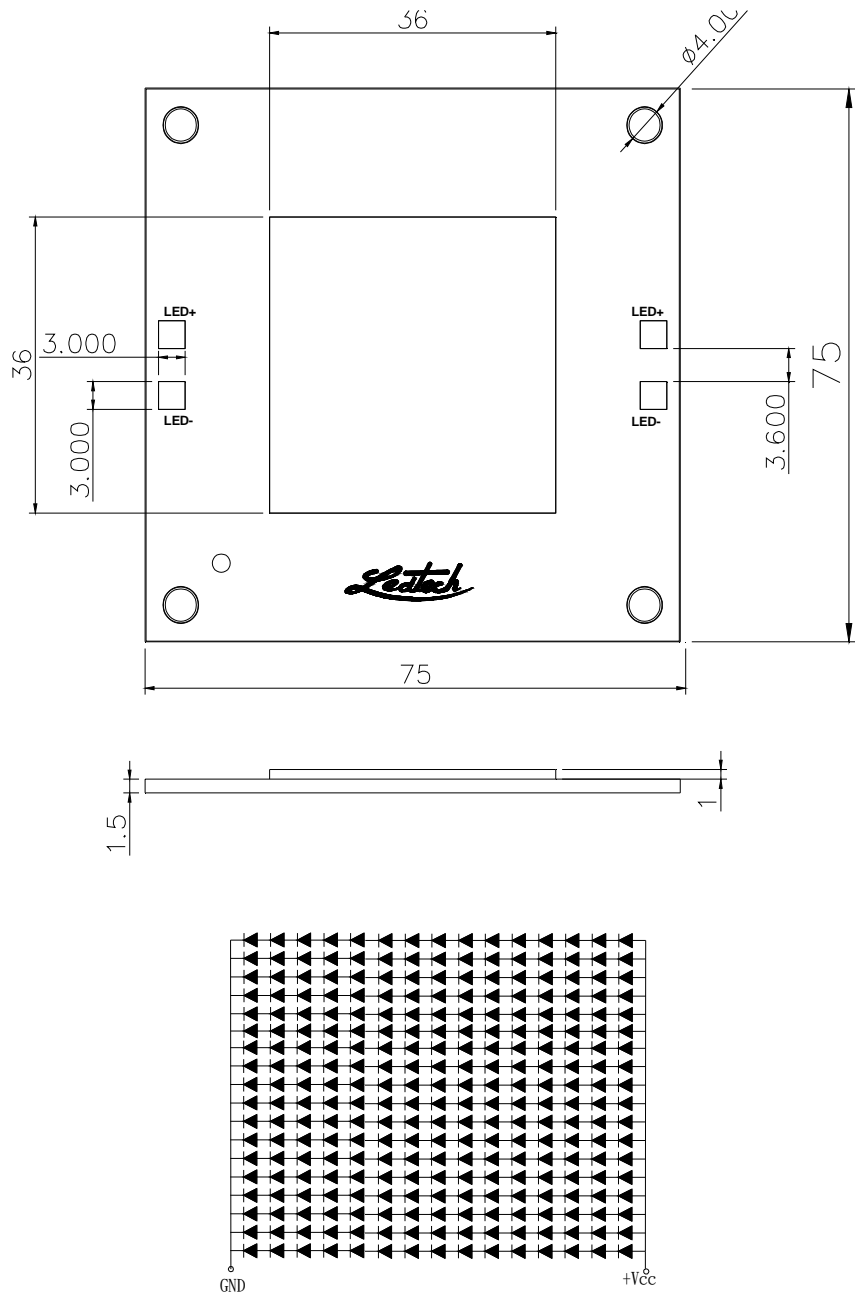
## Features

- Pb-Free soldering application
- RoHS compliance
- Multi-Chip package
- High Reliability

## Application

- Bay-light module
- Indoor decorative lighting
- Illumination
- Automotive Application
- Architectural Lighting
- Indicator / Decoration

**Package Dimensions**



**Notes:**

1. All dimensions are in mm.
2. Tolerance is  $\pm 0.25$ mm unless otherwise noted.

**Description**

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LP30N3-S069	InGaN/ Sapphire	White	Yellow Diffused

**Absolute Maximum Ratings at Ta=25 °C**

Parameter	Symbol	Rating	Unit
Power Dissipation	P <sub>D</sub>	54.6	W
D.C. Forward Current	I <sub>f</sub>	1050	mA
Peak Current(1/10Duty Cycle,0.1ms Pulse Width.)	I <sub>f</sub> (Peak)	1100	mA
Operating Temperature Range	T <sub>opr.</sub>	-40 to +100	°C
Storage Temperature Range	T <sub>stg.</sub>	-40 to +100	°C
Solder Heat Resistance	SHR	Hand Soldering:300±5°C for 3 sec.	
Electric Static Discharge Threshold (HBM)	ESD	1000	V

**Electrical and Optical Characteristics :**

Parameter	Symbol	Condition	Values			Units	
			Min.	Typ.	Max.		
Luminous Flux	Φ <sub>v</sub>	I <sub>f</sub> =1.05A		3681		lm	
			Rank L2	3000	--		3500
			Rank L3	3500	--		4000
			Rank L4	4000	--		4500
Forward voltage	V <sub>F</sub>	I <sub>f</sub> =1.05A		48		V	
			Rank V2	42	--		47
			Rank V3	47	--		52
Correlated Color Temperature	CCT	I <sub>f</sub> =1.05A	6000	--	7000	K	
CIE Chromaticity Coordinates: X Axis	X	I <sub>f</sub> =1.05A	--	0.3123	--		
CIE Chromaticity Coordinates: Y Axis	Y	I <sub>f</sub> =1.05A	--	0.3283	--		
Reverse Current	I <sub>R</sub>	V <sub>r</sub> =5V	--	--	50	μA	
Color Rendering Index	CRI	I <sub>f</sub> =1.05A	80	--	--	Ra	
Viewing angle at 50% IV		2θ <sub>1/2</sub>	--	120	--	Deg.	

Notes:

1. The data tested by IS tester.
2. Customer's special requirements are also welcome.

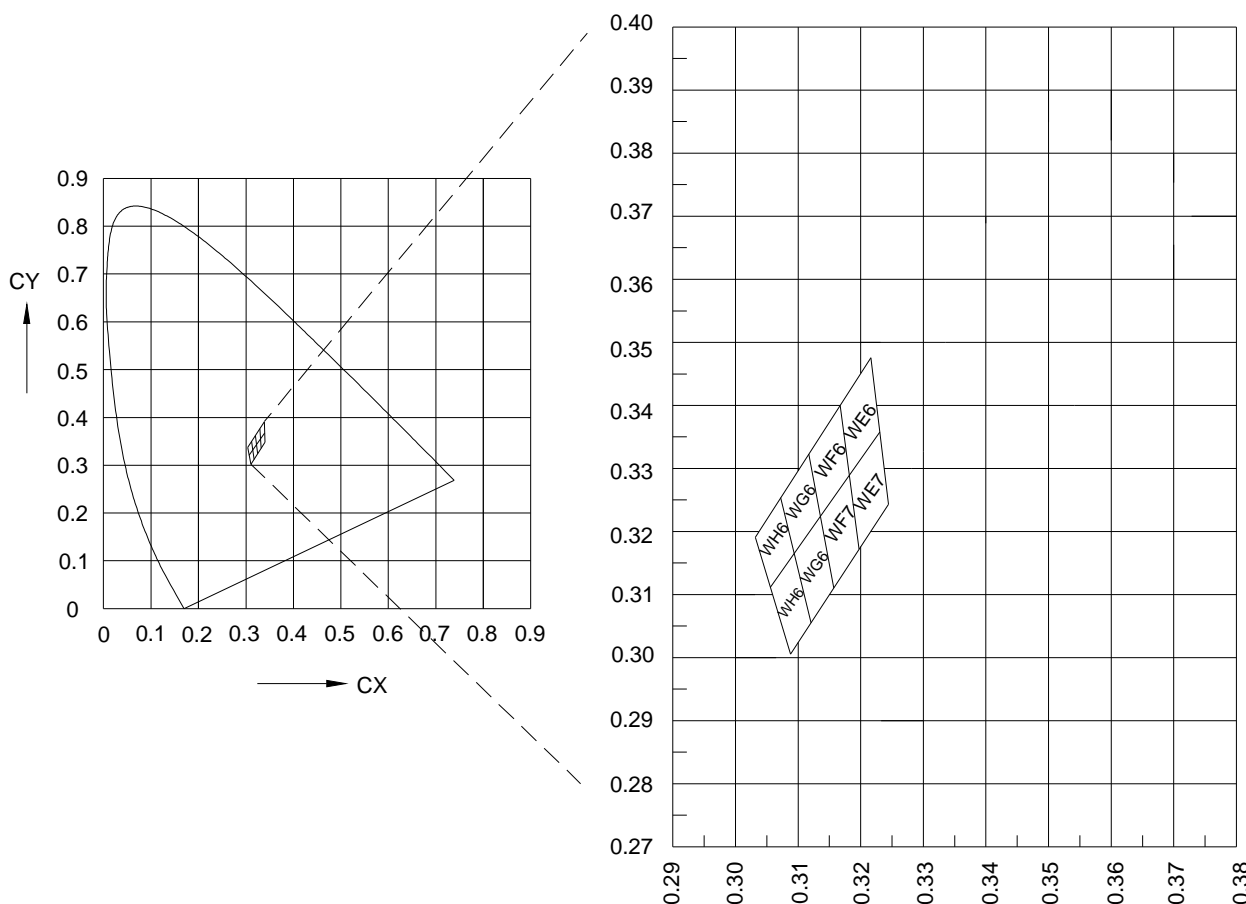
### Chromaticity Coordinates Specifications for Bin Grading:

COLOR RANKS (IF=1050mA, Ta=25°C)

BIN	RANK					BIN	RANK				
WE6	X	0.3164	0.3210	0.3218	0.3175	WE7	X	0.3175	0.3218	0.3227	0.3186
	Y	0.3395	0.3468	0.3353	0.3283		Y	0.3283	0.3353	0.3233	0.3169
WF6	X	0.3122	0.3164	0.3175	0.3136	WF7	X	0.3136	0.3175	0.3186	0.3151
	Y	0.3331	0.3395	0.3283	0.3223		Y	0.3223	0.3283	0.3169	0.3114
WG6	X	0.3085	0.3122	0.3136	0.310	WG7	X	0.3103	0.3136	0.3151	0.3120
	Y	0.3273	0.3331	0.3223	0.3170		Y	0.3170	0.3223	0.3114	0.3064
WH6	X	0.3052	0.3085	0.3103	0.3070	WH7	X	0.3070	0.3103	0.3120	0.3091
	Y	0.3222	0.3273	0.3170	0.3118		Y	0.3118	0.3170	0.3064	0.3019

Note: X,Y Tolerance each Bin limit is±0.01.

### Chromaticity Coordinates & Bin grading diagram:



**Typical Electrical/Optical Characteristic Curves**

(25°C Ambient Temperature Unless Otherwise Noted)

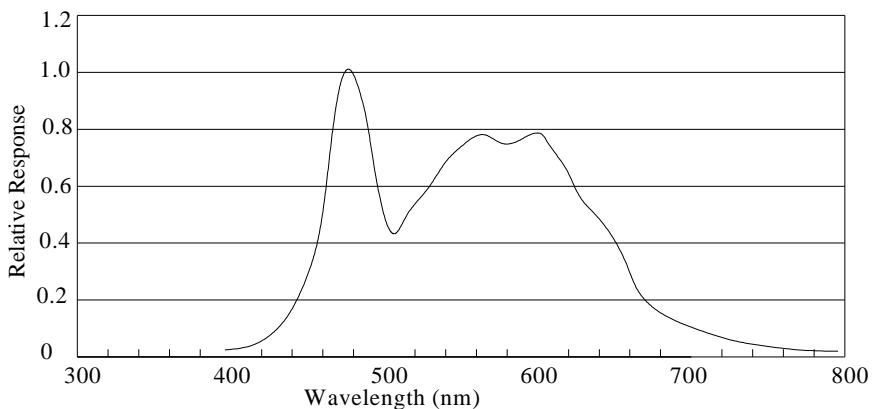
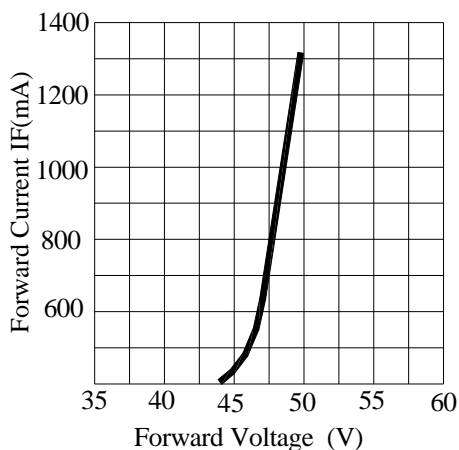
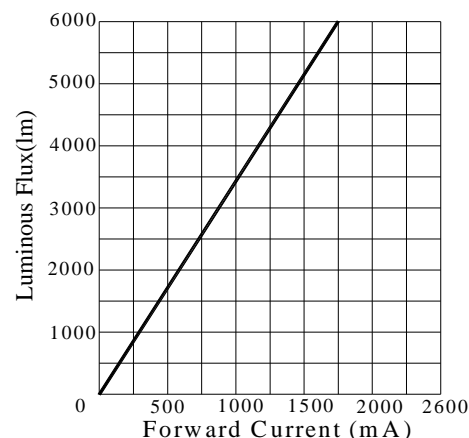


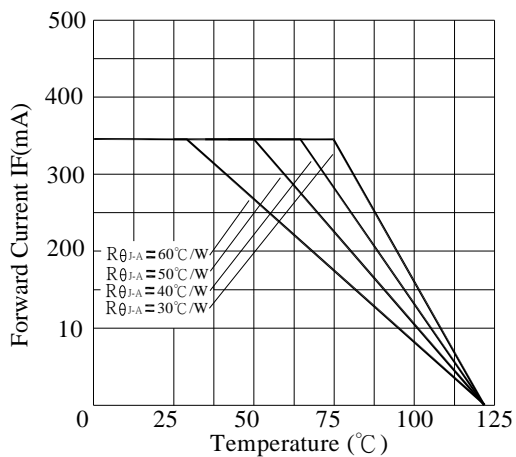
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



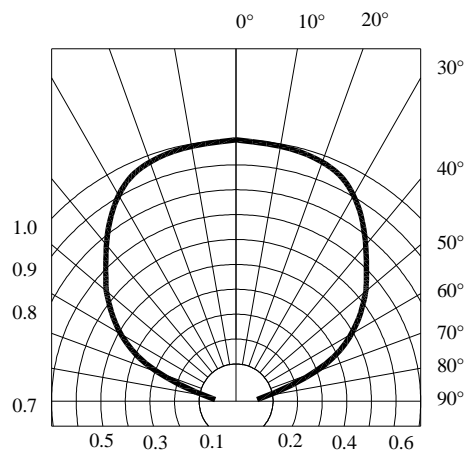
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current



Radiation Diagram

## Handling of Silicone Resin LEDs

### Handling Indications

During processing, mechanical stress on the surface should be minimized as much as possible. Sharp objects of all types should not be used to pierce the sealing compound



**Figure 1**

In general, LEDs should only be handled from the side. By the way, this also applies to LEDs without a silicone sealant, since the surface can also become scratched.



**Figure 2**

When populating boards in SMT production, there are basically no restrictions regarding the form of the pick and place nozzle, except that mechanical pressure on the surface of the resin must be prevented. This is assured by choosing a pick and place nozzle which is larger than the LED's reflector area.